

WHAT IS CLAIMED IS:

1. A method for treating a host comprising implanting cells of an immortalized human neuro-derived fetal cell line into the host.
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2. A method as in claim 1, wherein the fetal cell line is derived from human fetal astrocytes.
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3. A method as in claim 2, wherein the cells are derived from the SVG cell line.
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4. A method as in claim 1, wherein the cells are encapsulated by a membrane which is impermeable to antibodies.
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5. A method as in claim 1, wherein the cells are implanted into the central nervous system of the host.
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6. A method as in claim 5, wherein the cells are implanted into the basal ganglia of the host.
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7. A method as in claim 5, wherein the cells are implanted into the lumbar theca of the host.
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8. A method as in claim 5, wherein the cells are implanted into a lateral ventricle of the host.
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9. A method as in claim 1, wherein the cells are implanted extraneurally.
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10. A method as in claim 9, wherein the cells are implanted subcutaneously.
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11. A method as in claim 1, wherein the cells have been transfected with a vector comprising a nucleic acid sequence encoding a peptide for expression by the cells.

12. A method as in claim 11, wherein the peptide is an enzyme.

5 13. A method as in claim 11, wherein the peptide is a disease associated antigen.

10 14. A method as in claim 13, further comprising removing the cells following implantation.

15 15. A method as in claim 13, wherein the cells are encapsulated by a membrane impermeable to antibodies.

16. A method for treating Parkinson's Disease in a host comprising implanting cells derived from an SVG cell line into the basal ganglia of the host.

17. A method as in claim 16, wherein the SVG cells are transfected with a nucleic acid sequence encoding tyrosine hydroxylase operably linked to a transcriptional promoter and a transcriptional terminator.

18. A method as in claim 16, wherein the host does not require immunosuppressive therapy following implantation of the cells.

19. A method of treating a neurological disorder caused by a lesion in a host's central nervous system, comprising:

30 placing a needle into the central nervous system; and

injecting a suspension of cells into the central nervous system through the needle, which cells are from an immortalized human neuro-derived fetal cell line.

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20. A method as in claim 19, wherein the lesion is confined to a region of the central nervous system and the cells are injected into the region.

21. A method as in claim 19, wherein the cells are SVG cells.
22. A method as in claim 19, wherein the 5 neurological disorder is Parkinsonism.
23. A method as in claim 19, wherein the cells are injected with a infusion pump.